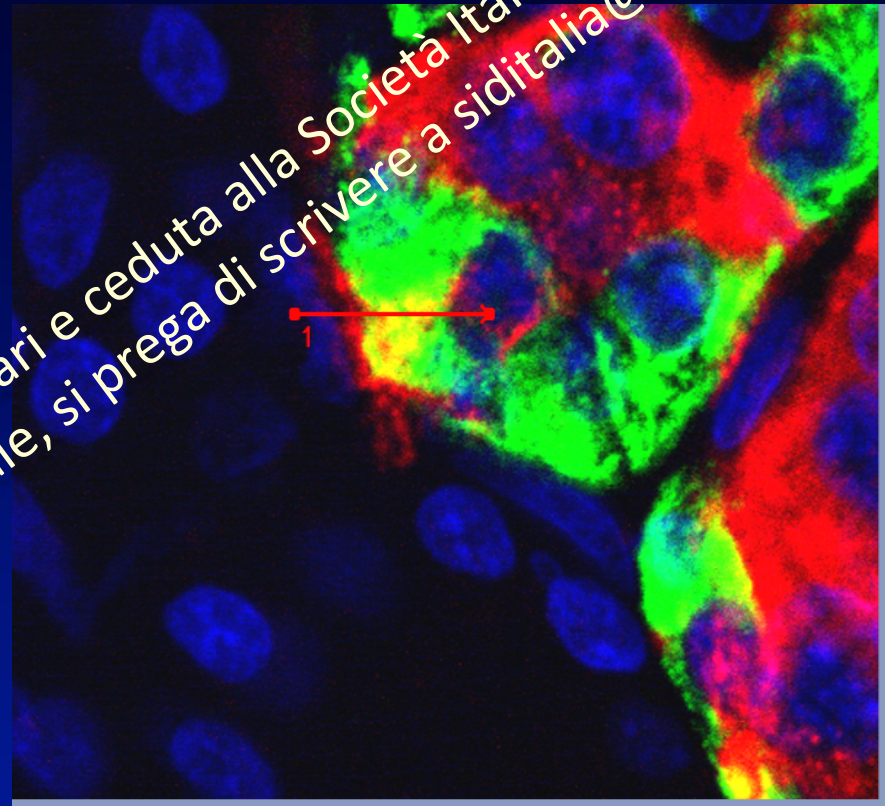


preservazione di massa e funzione nel DMt2



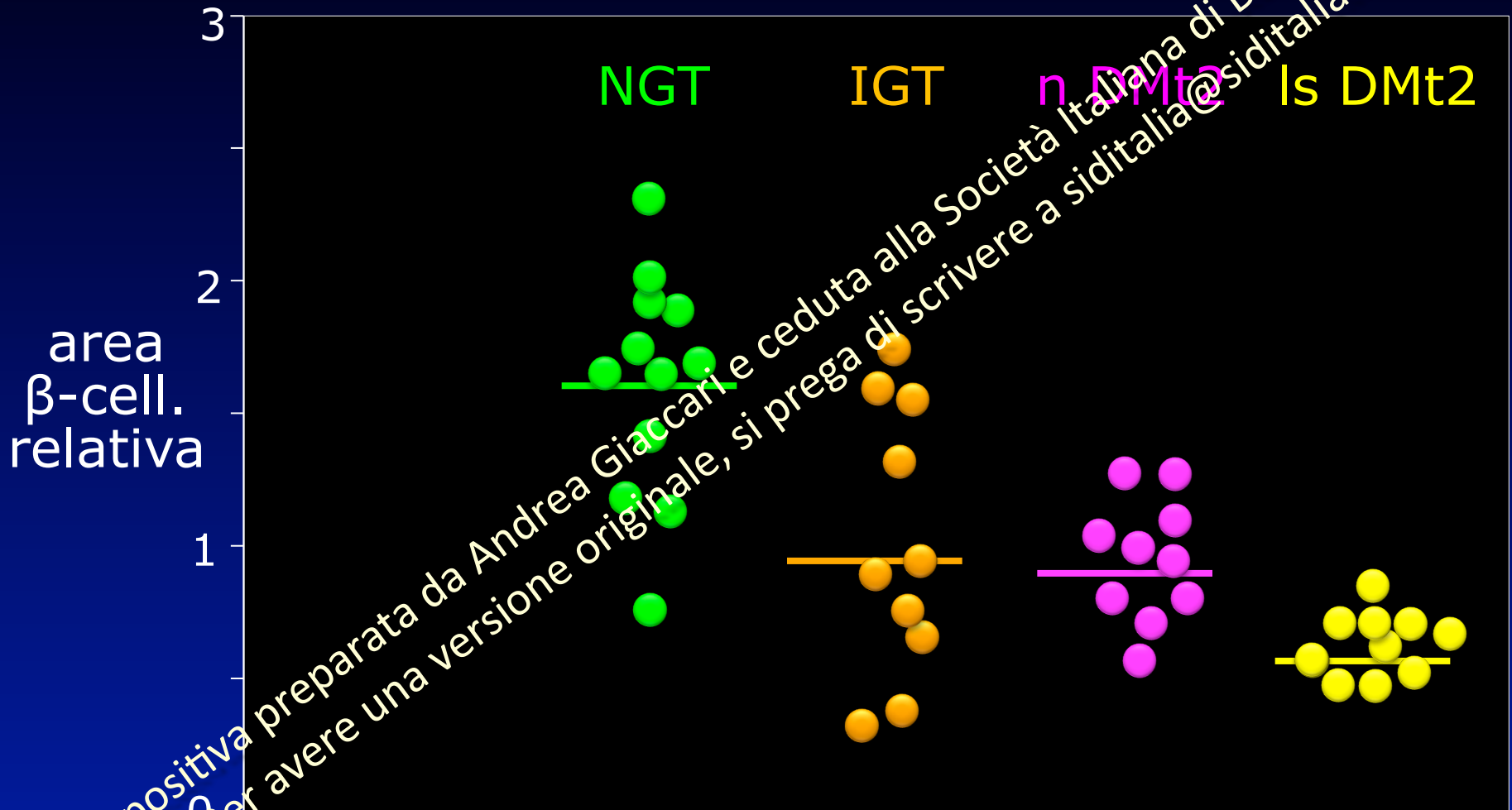
Andrea Giaccari
Endocrinologia
e Malattie del
Metabolismo
UCSC - Roma

50
SID
Società Italiana
di Diabetologia
Anni 50 Anni
insieme contro il Diabete

CONGRESSO
NAZIONALE

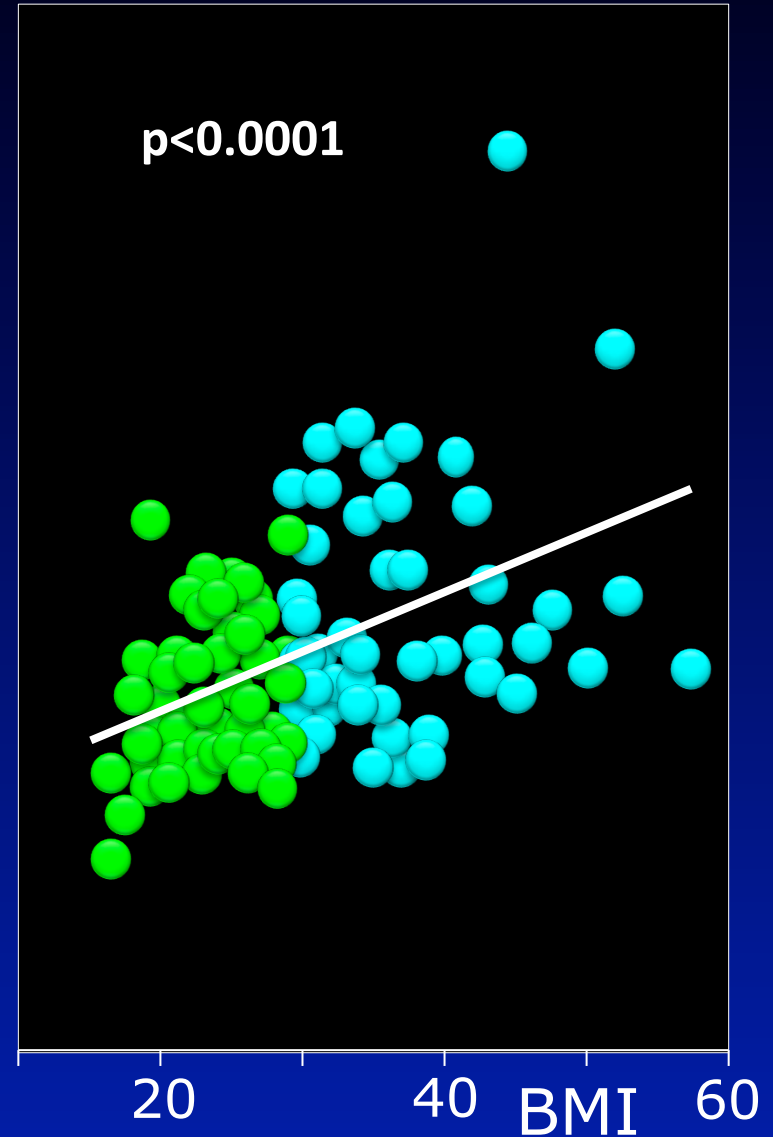
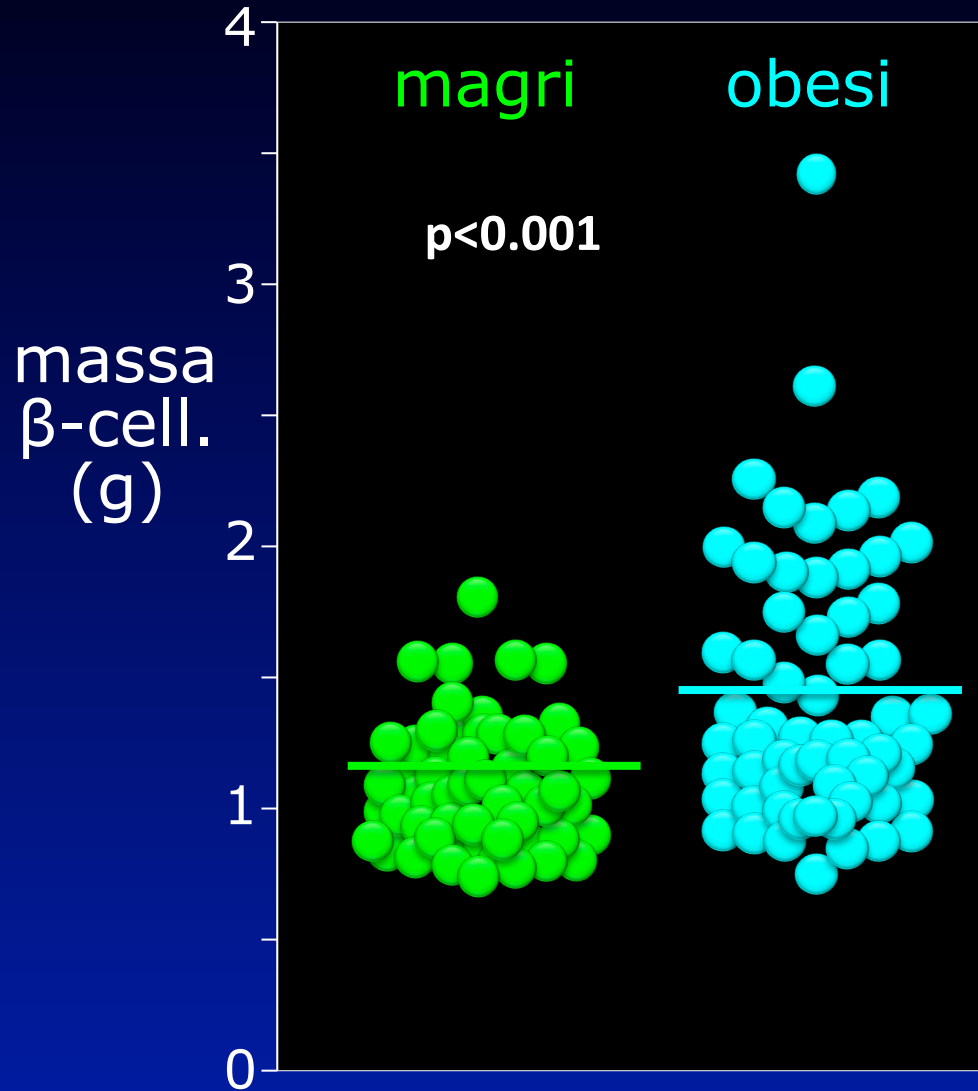
SOCIETÀ ITALIANA DI DIABETOLOGIA

nel Dt2 si riduce massa β -cellulare



Diapositiva preparata da Andrea Giaccari e ceduta alla Societ  Italiana di Diabetologia
Per avere una versione originale, si prega di scrivere a siditalia@sidalia.it

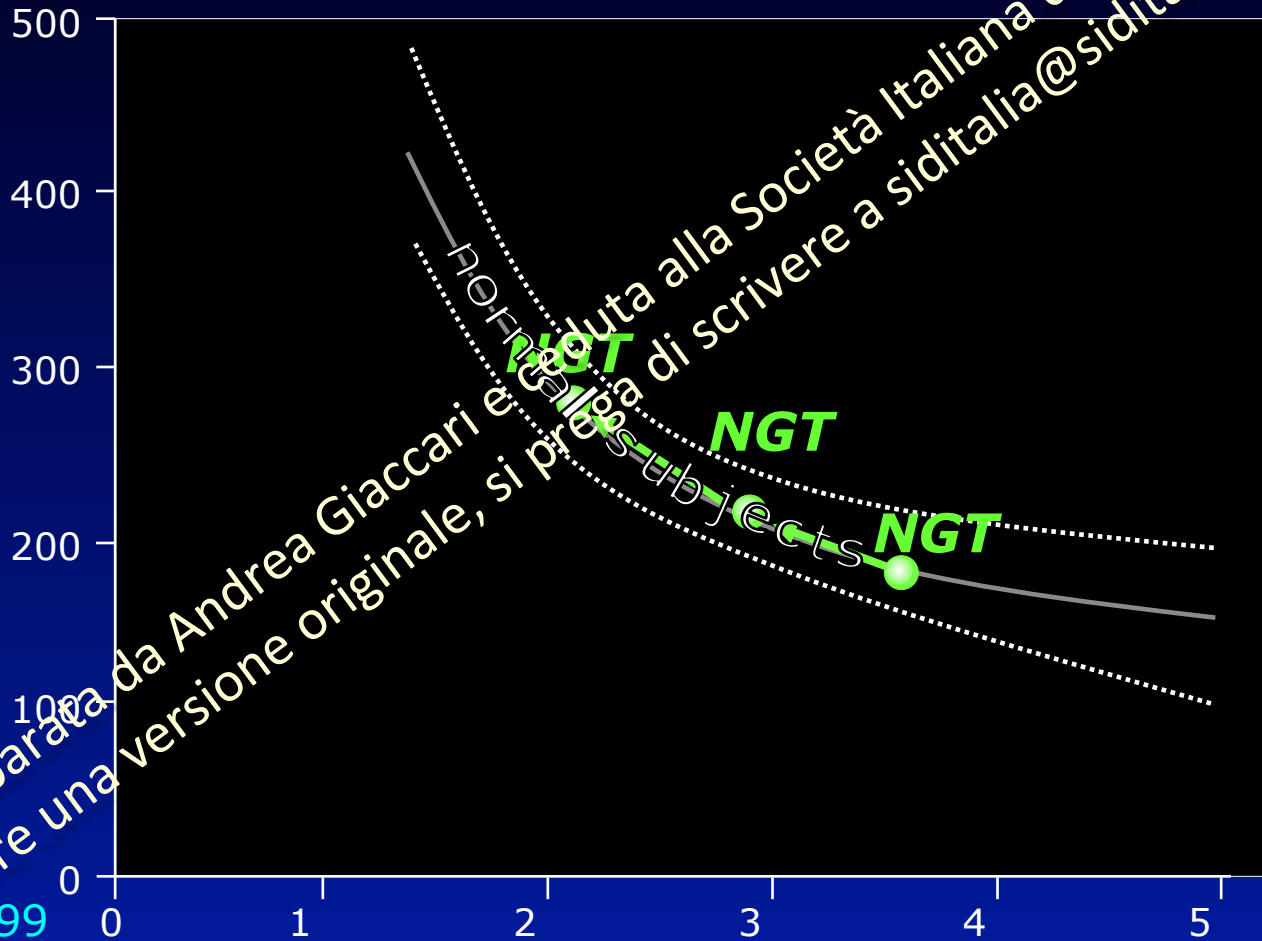
obesità aumenta massa β -cell



disposition index

secrezione compensa insulino-resistenza

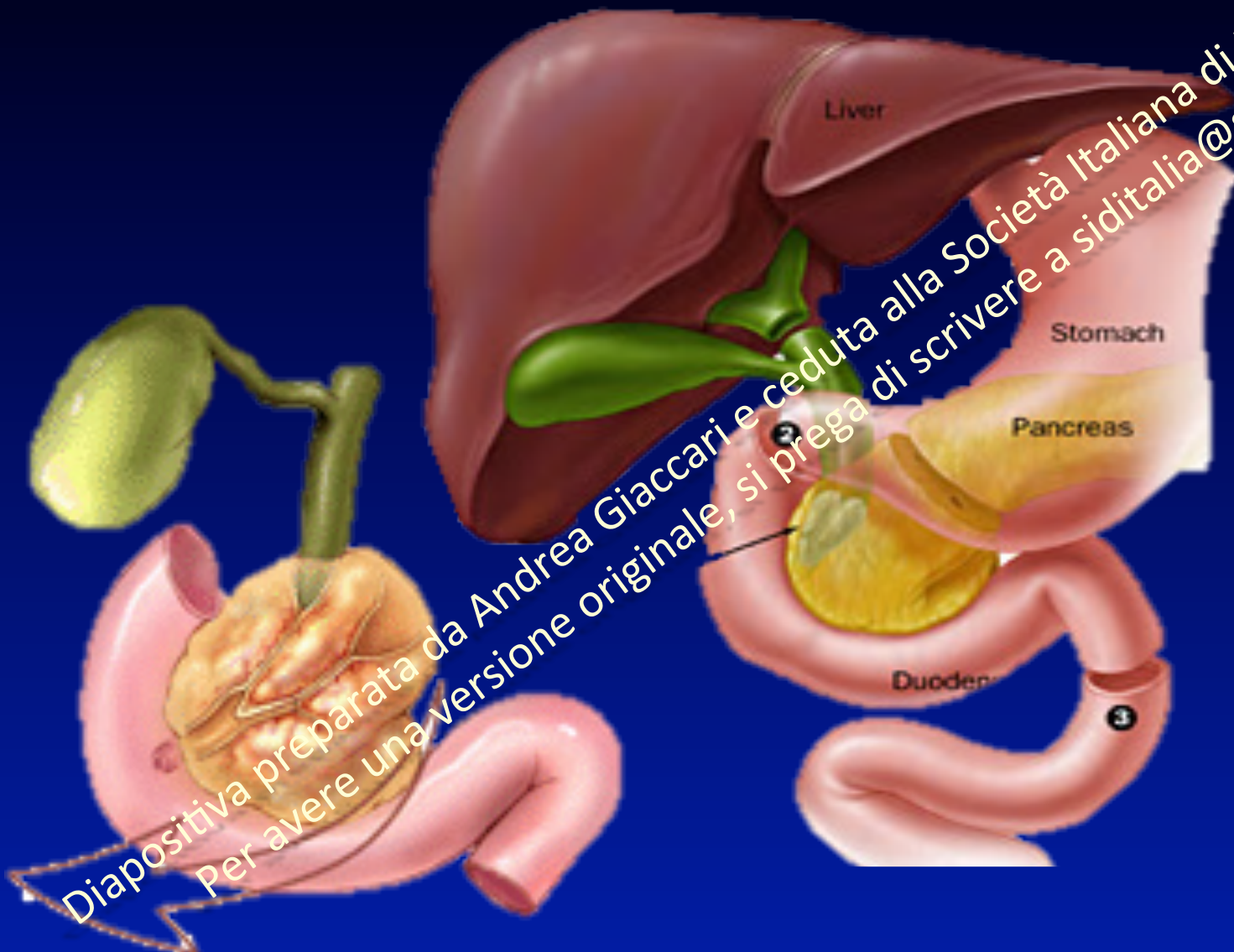
IVGTT
insulina
 $\mu\text{U}/\text{ml}$



CLAMP (glucose uptake in $\text{mg}\cdot\text{kg}^{-1}\cdot\text{EMBS}\cdot\text{min}^{-1}$)

Weyer G et al
JCI 106:787, 1999

Whipple's surgery

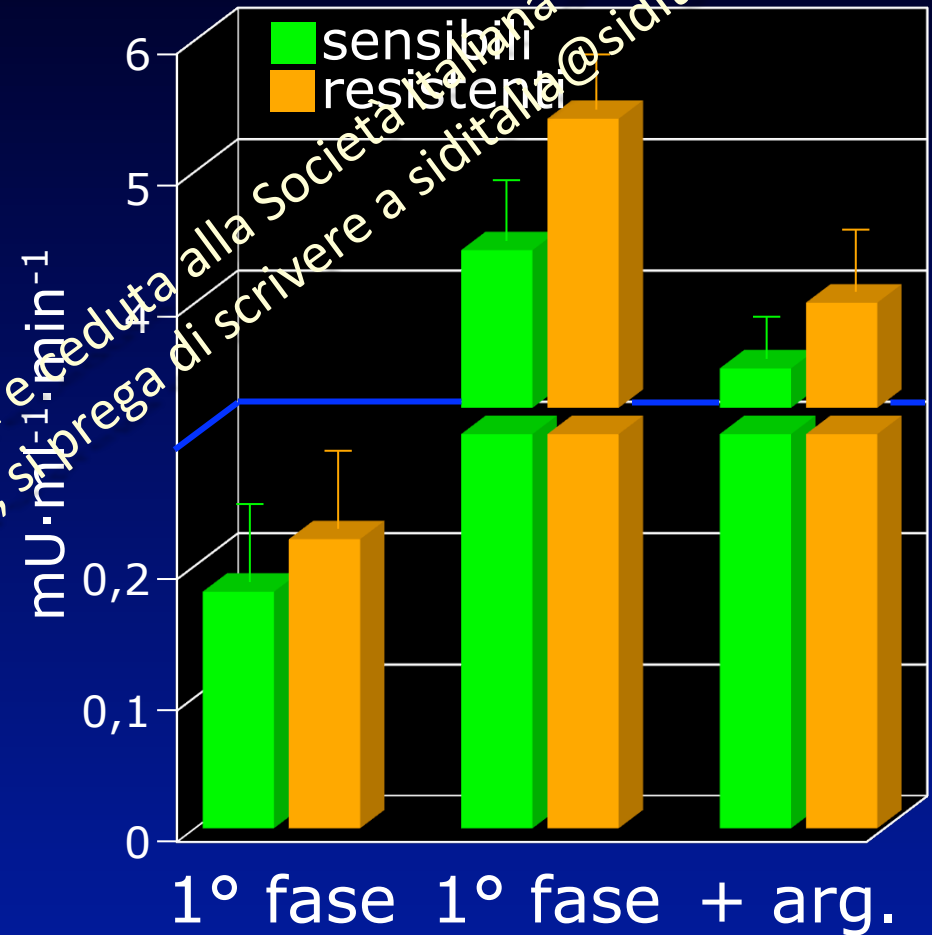


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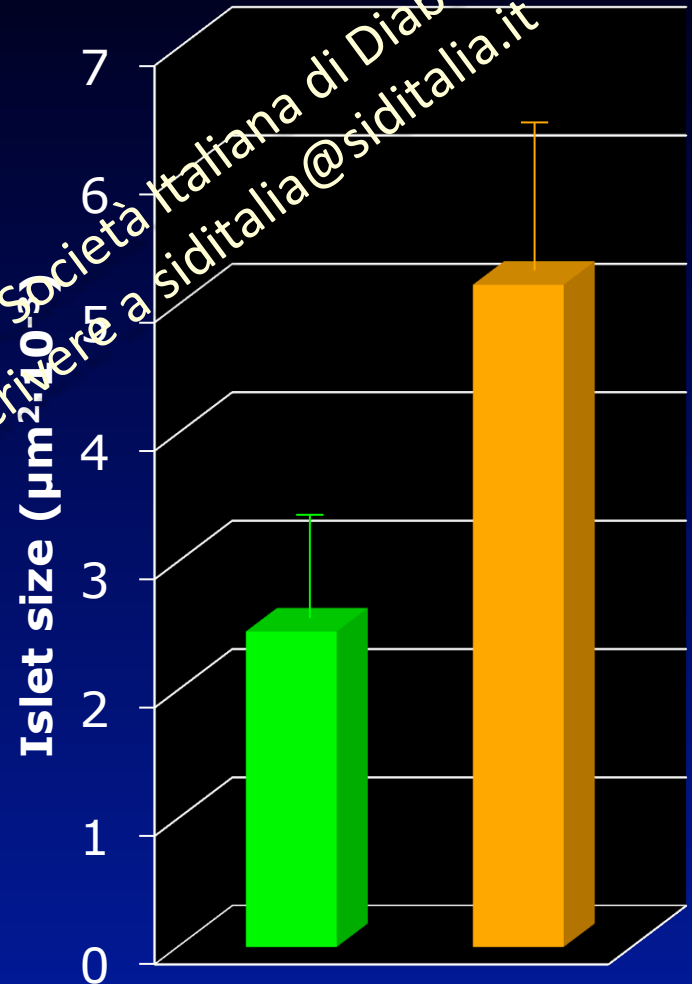
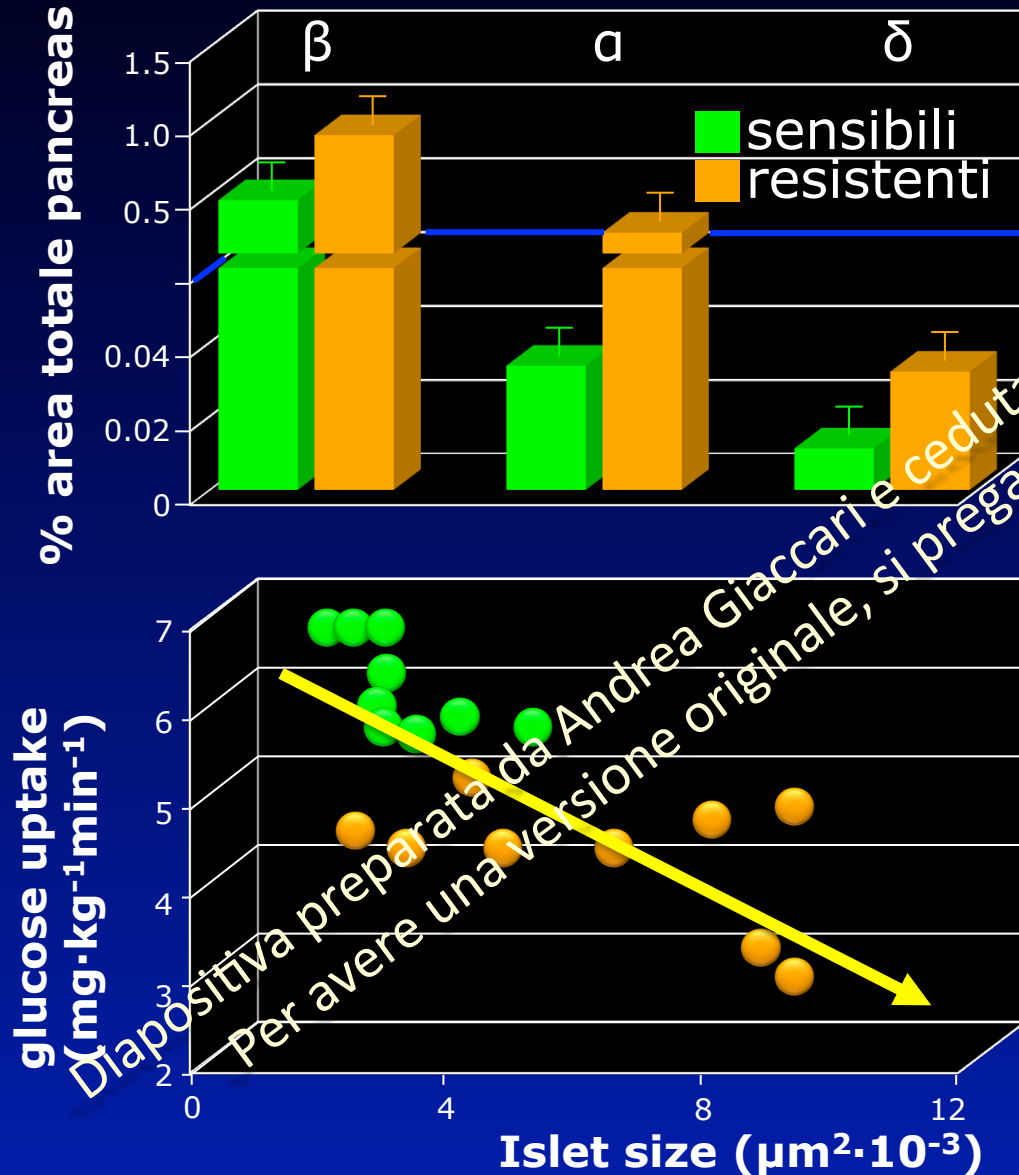
pazienti sottoposti a panx

divisi per glucose uptake

	sensibili	resistenti
glucose uptake ($\text{mg} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$)	6.38 ± 0.70	3.36 ± 0.56
BMI ($\text{kg} \cdot \text{m}^{-2}$)	27.7 ± 3.22	28.1 ± 3.7
Waist/Hip ratio	0.93 ± 0.05	0.95 ± 0.04
glicemia (mg/dl)	89.8 ± 11.8	90.4 ± 13.7
insulina ($\mu\text{UI/ml}$)	7.83 ± 2.07	9.23 ± 4.21
HbA1c (%)	5.38 ± 0.62	5.26 ± 0.63

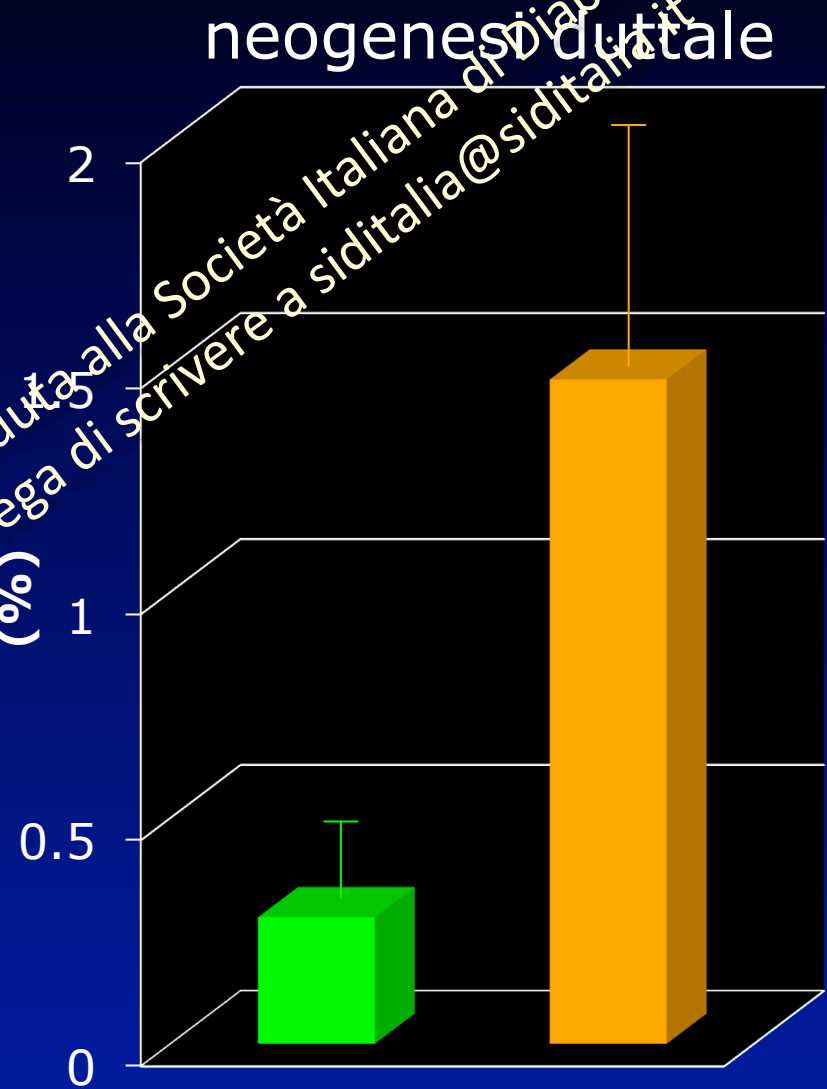
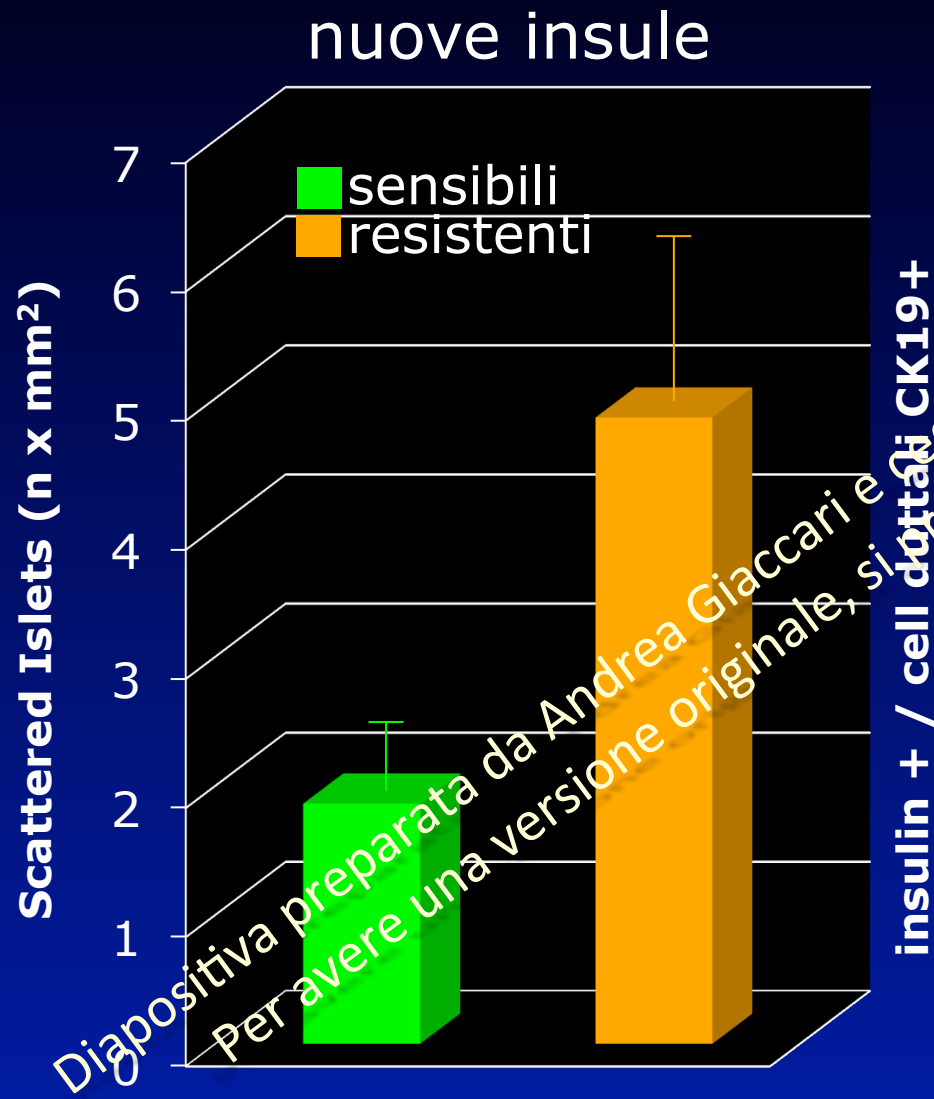


insulino-resistenza correla con massa

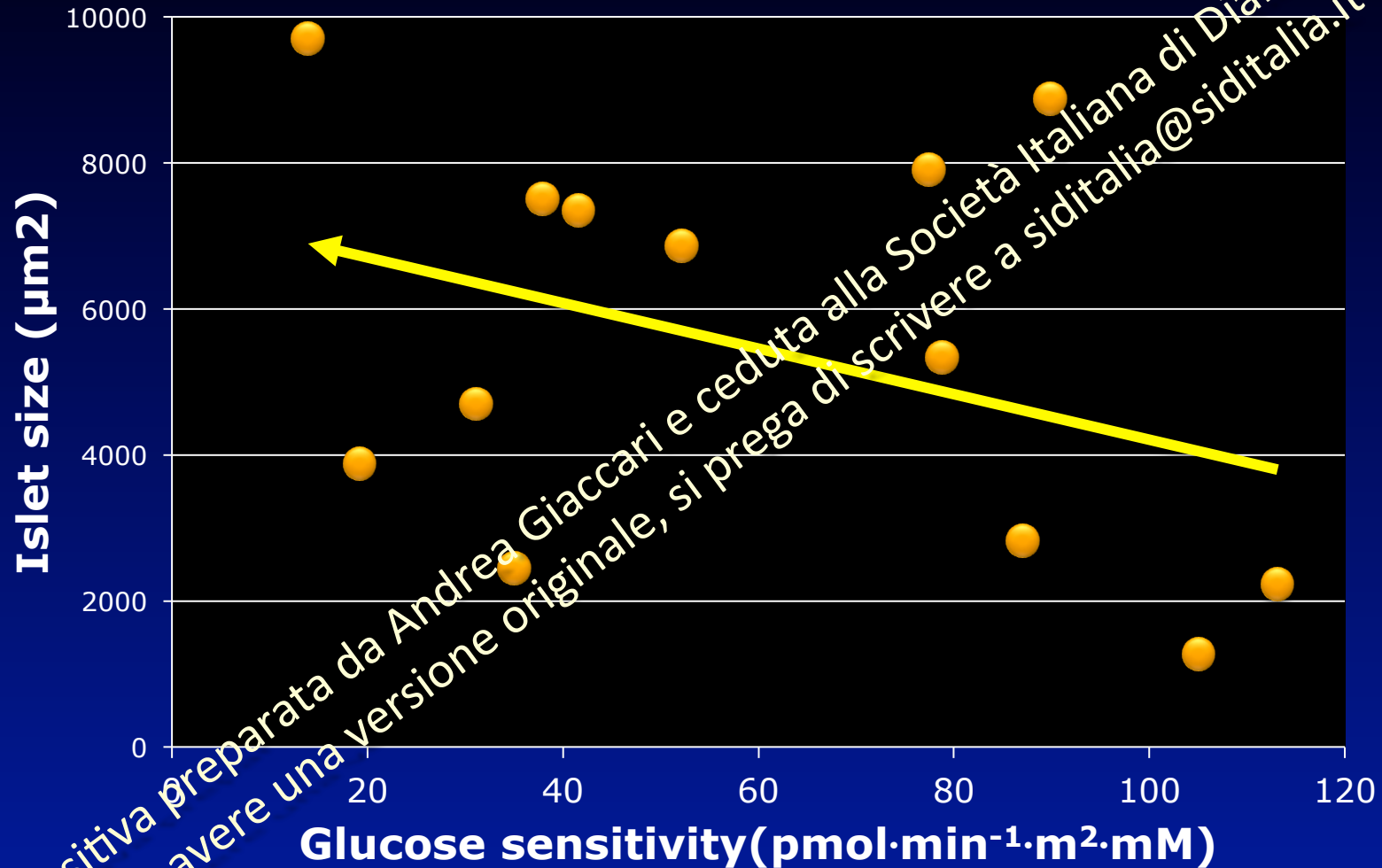


Mezza T Diabetes
63;994; 2014

insulino-resistenza e neogenesi

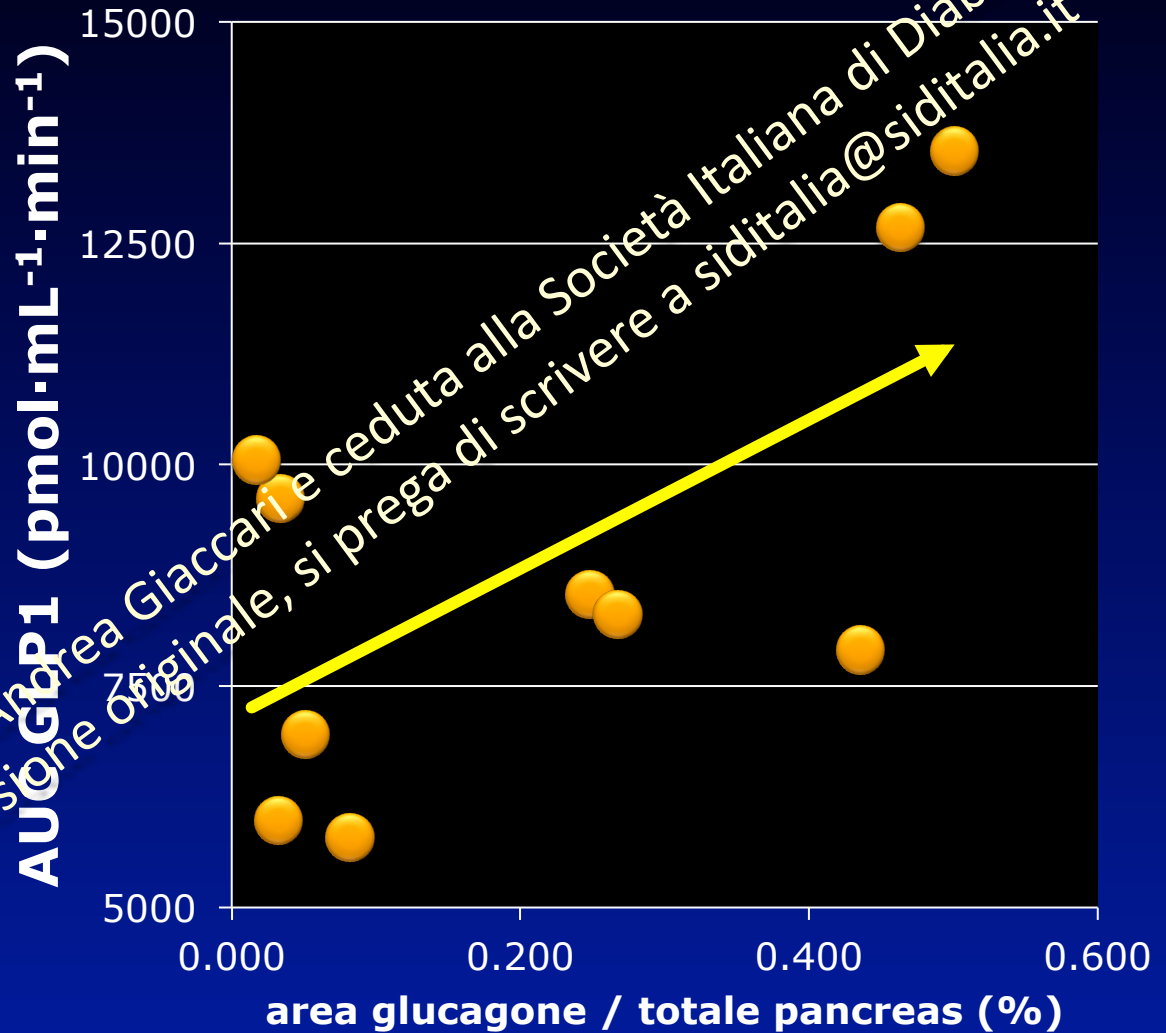
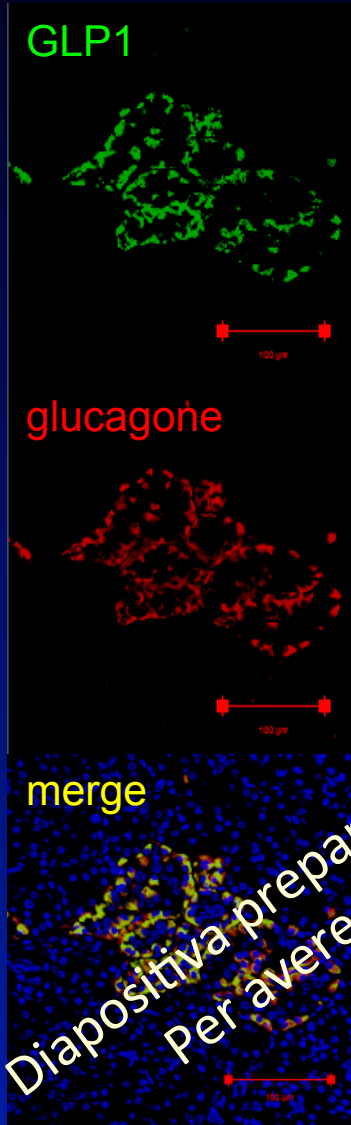


aumento massa: un possibile stimolo



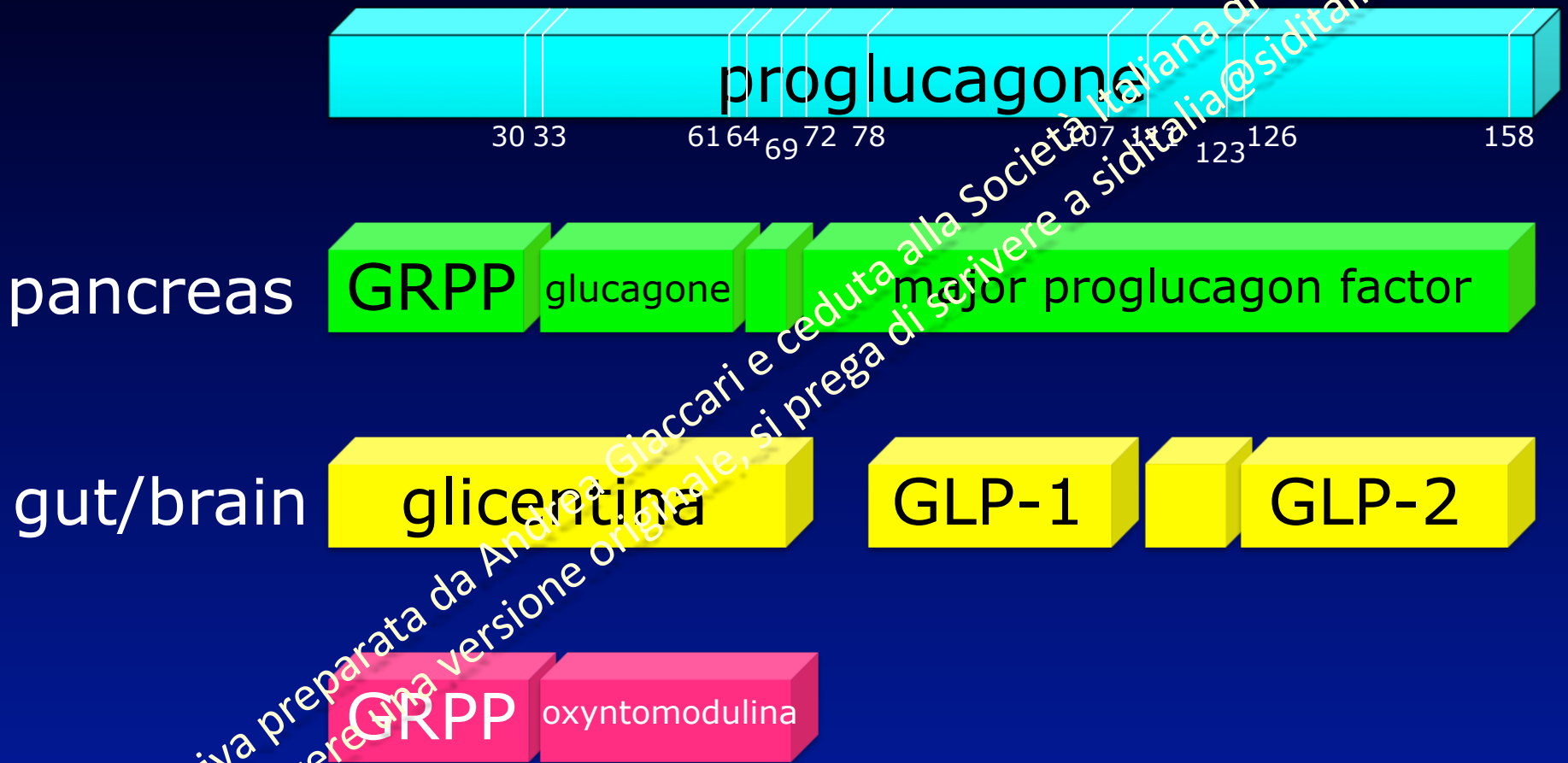
Mezza T. et al.: CO 42: Venerdì 30 ore 08.30, sala verde
CO 61: Venerdì 30 ore 10.45, sala indaco

GLP-1 intrainsulare correla con secrezione



Mezza T Diabetes 63;994; 2014

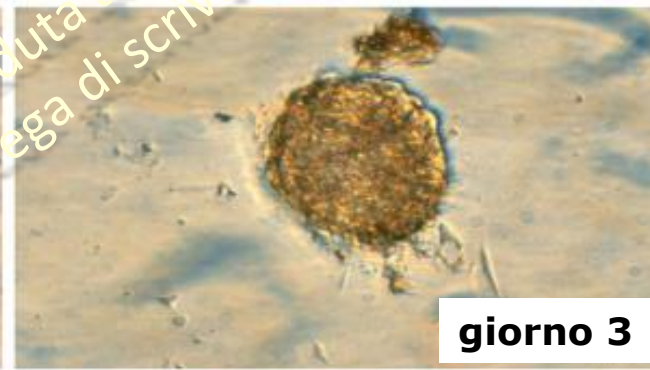
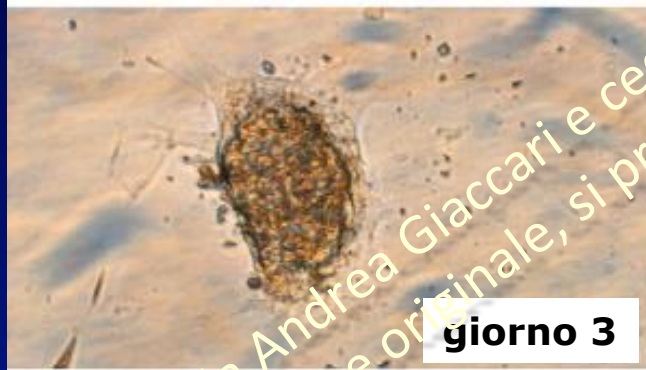
splicing alternativo proglucagone



GLP-1 preserva isole in vitro.

controllo

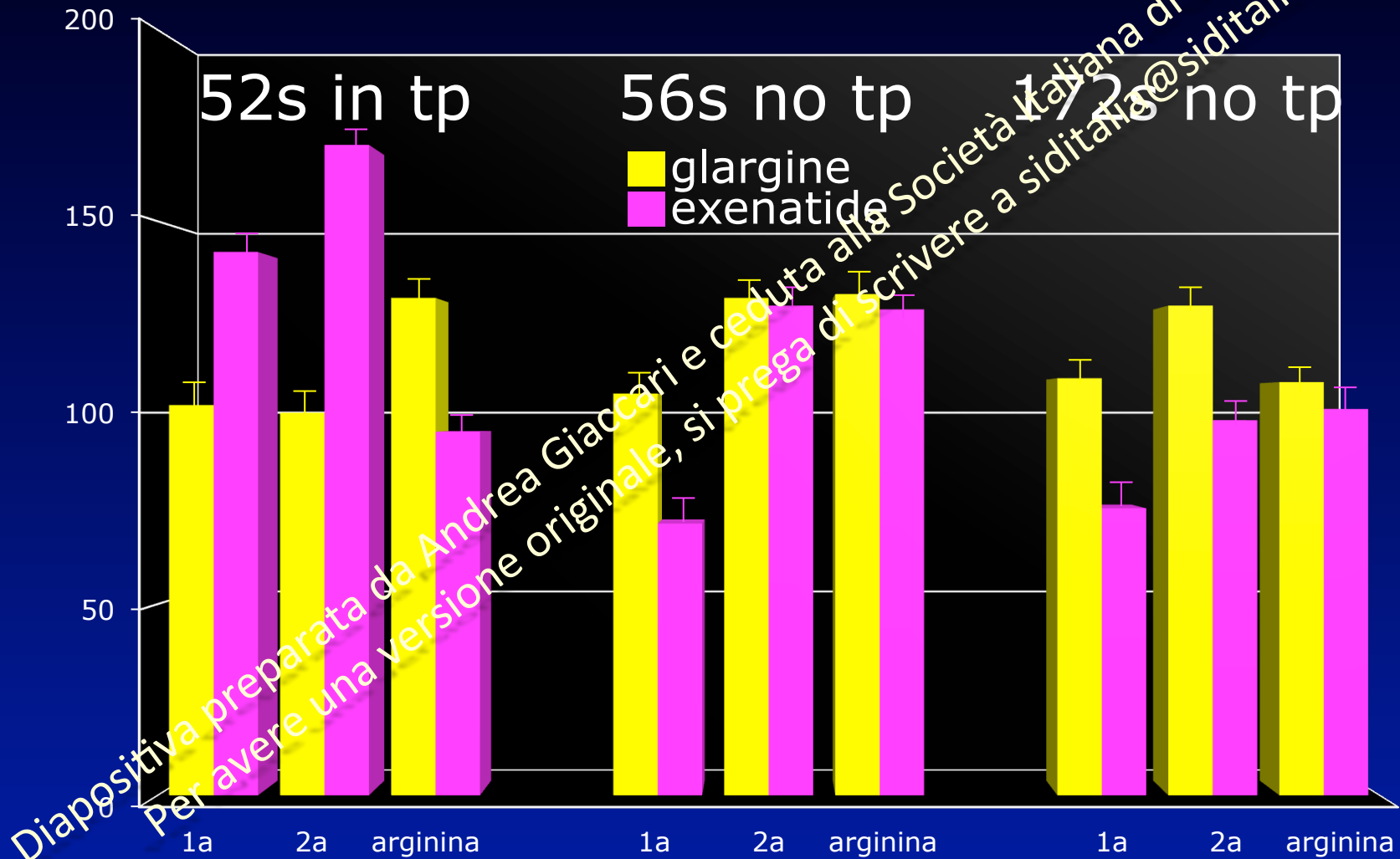
GLP-1



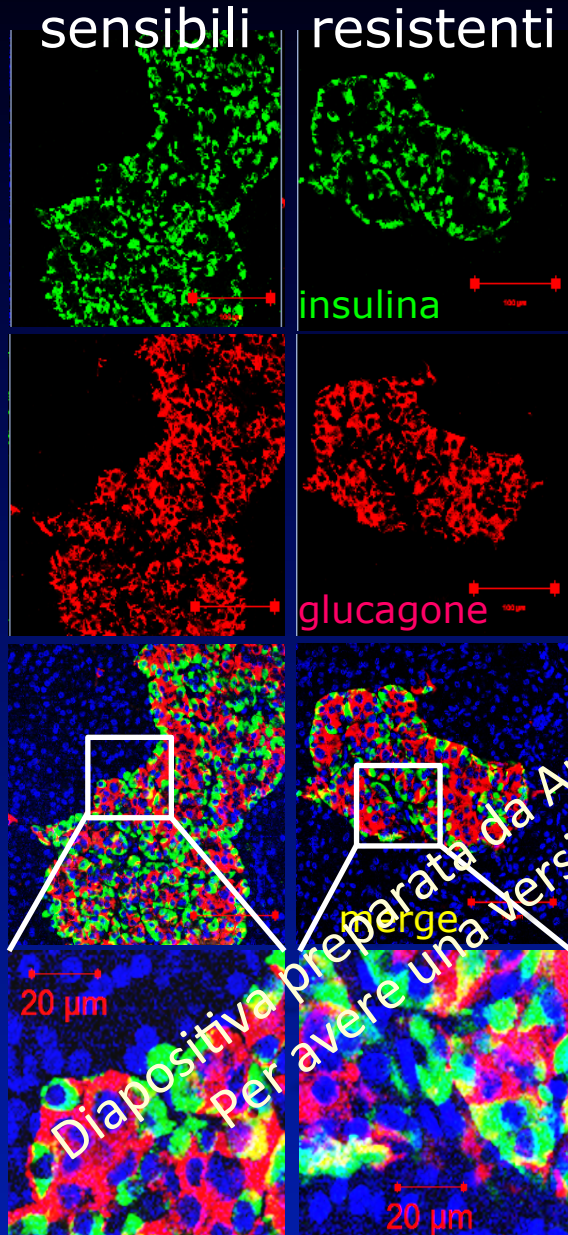
Diapositiva preparata da Andrea Giaccari e ceduta alla Società Italiana di Diabetologia.
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exenatide vs. glargine

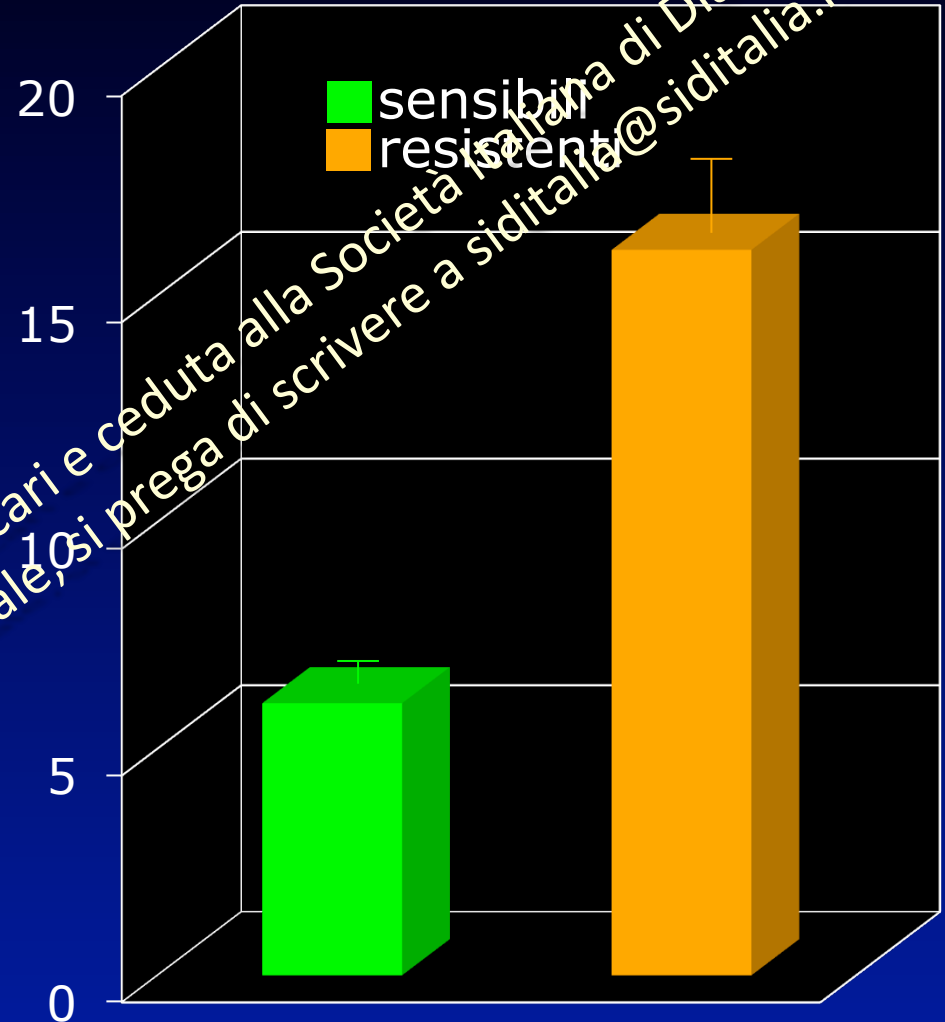
(GLP-1 vs. glucotoxicity a lungo termine)



transdifferenziazione glucagone -> insulina



double positive/total cells (%)



Mezza T Diabetes 63;994; 2014

riepilogo

In assenza di diabete, la presenza di IR determina:

- aumento di secrezione
- aumento di massa
 - ✓ neogenesi
 - ✓ transdifferenziazione
 - replicazione?

possibile ruolo GLP-1

trigger: perdita glucose sensitivity?

fra preservazione e stimolo

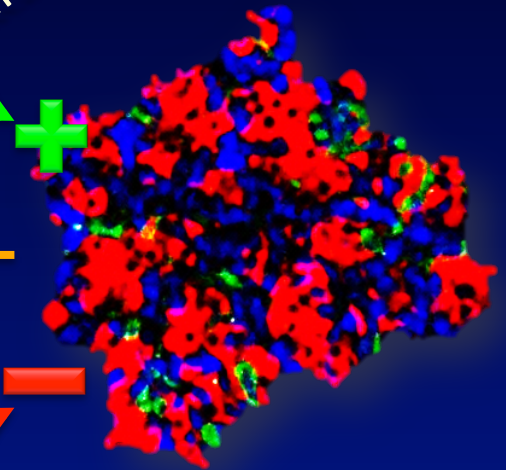
preservazione

trans

neogenesi

GLP-1

sovrastimolo

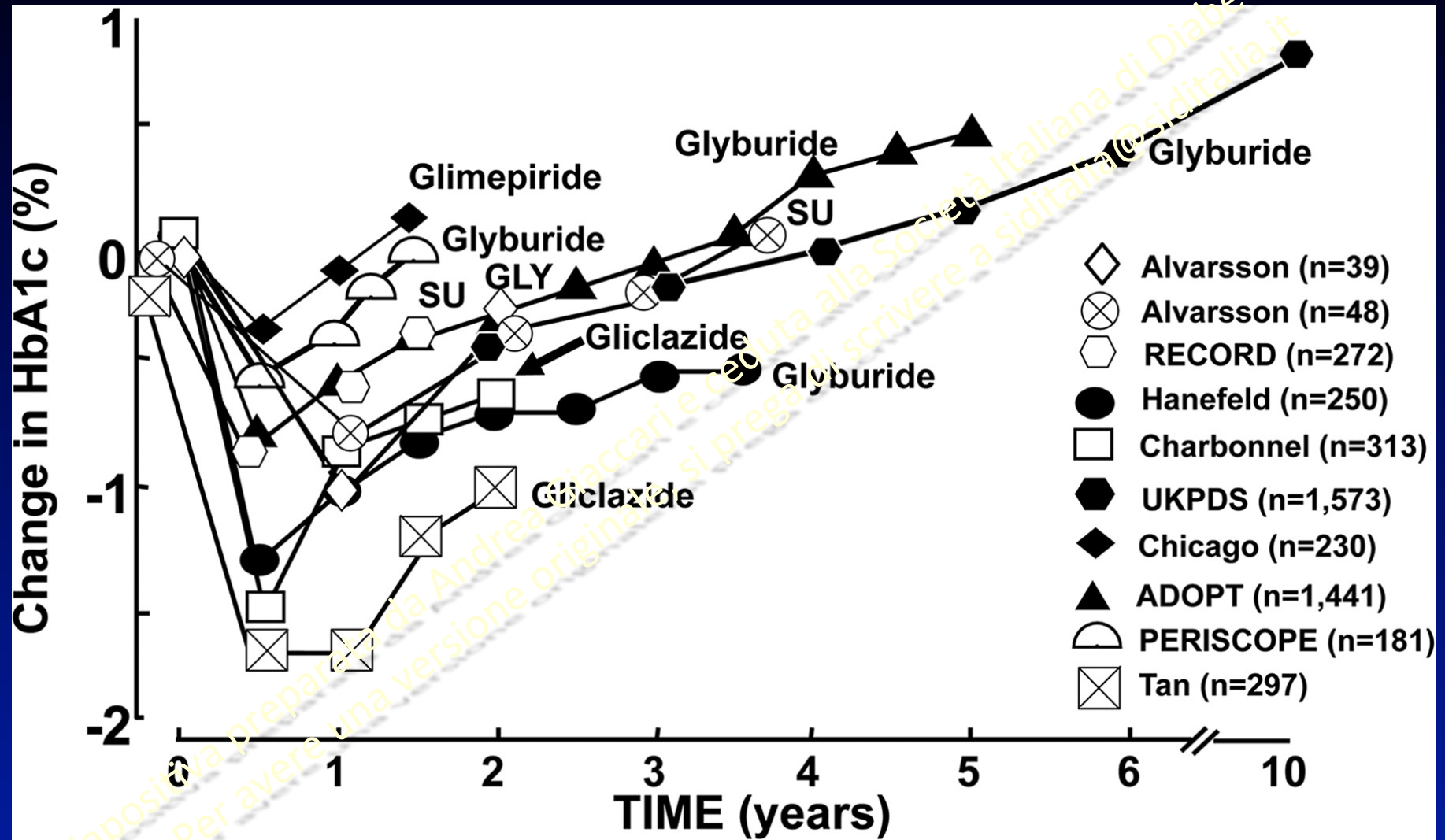


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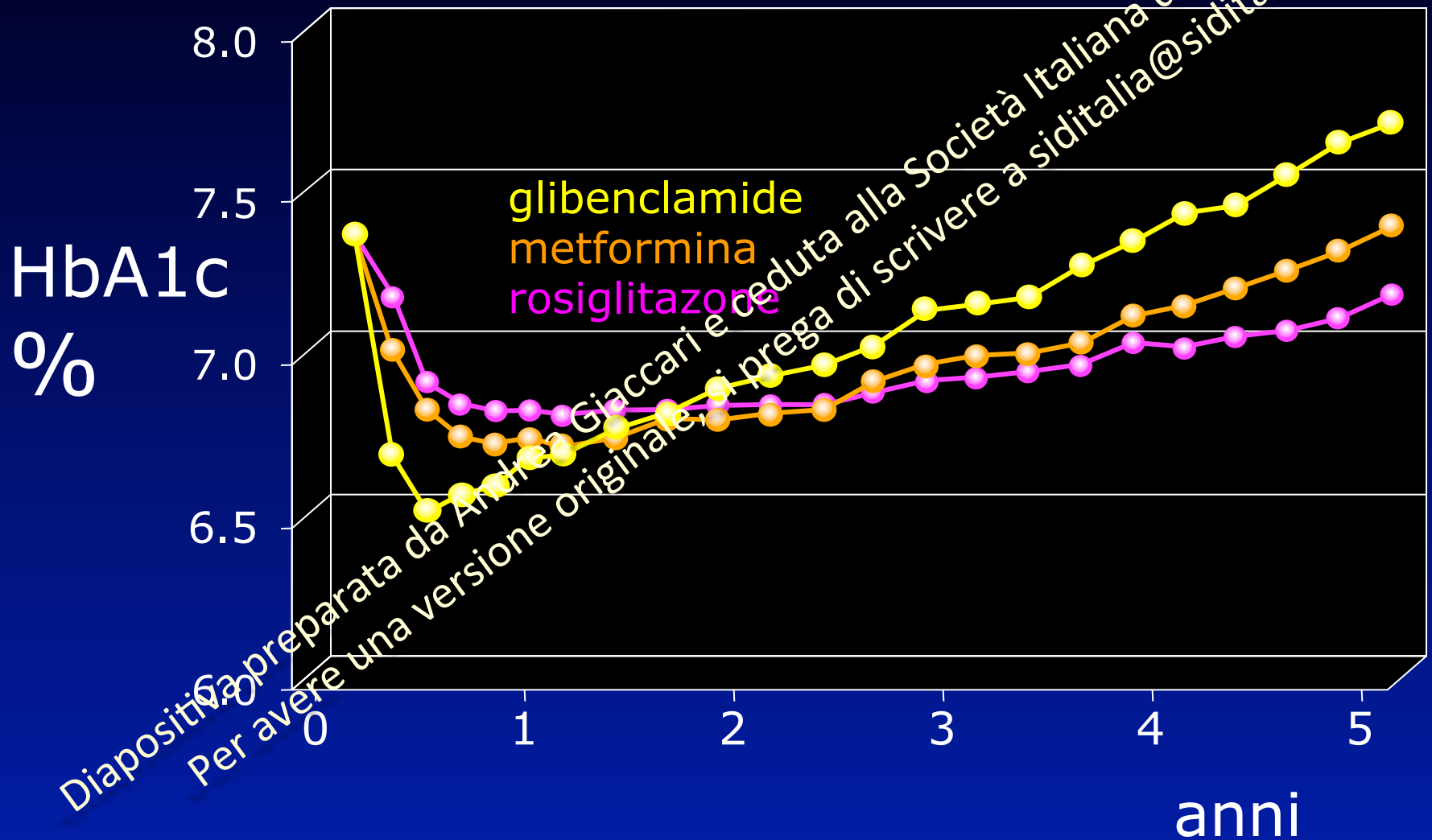
nel frattempo che fare?

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sulfoniluree portano a failure.



ADOPT: confronto durata in monoterapia



fra preservazione e stimolo

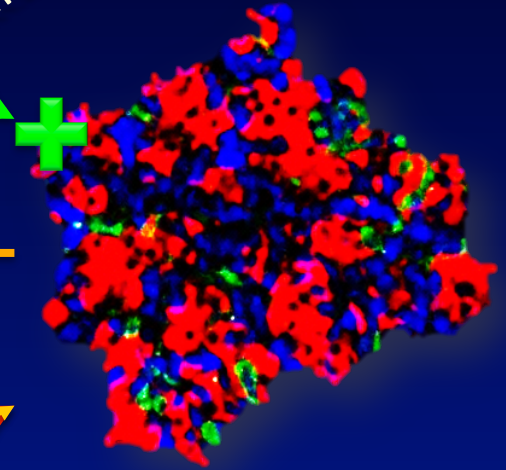
preservazione

trans

neogenesi

GLP-1

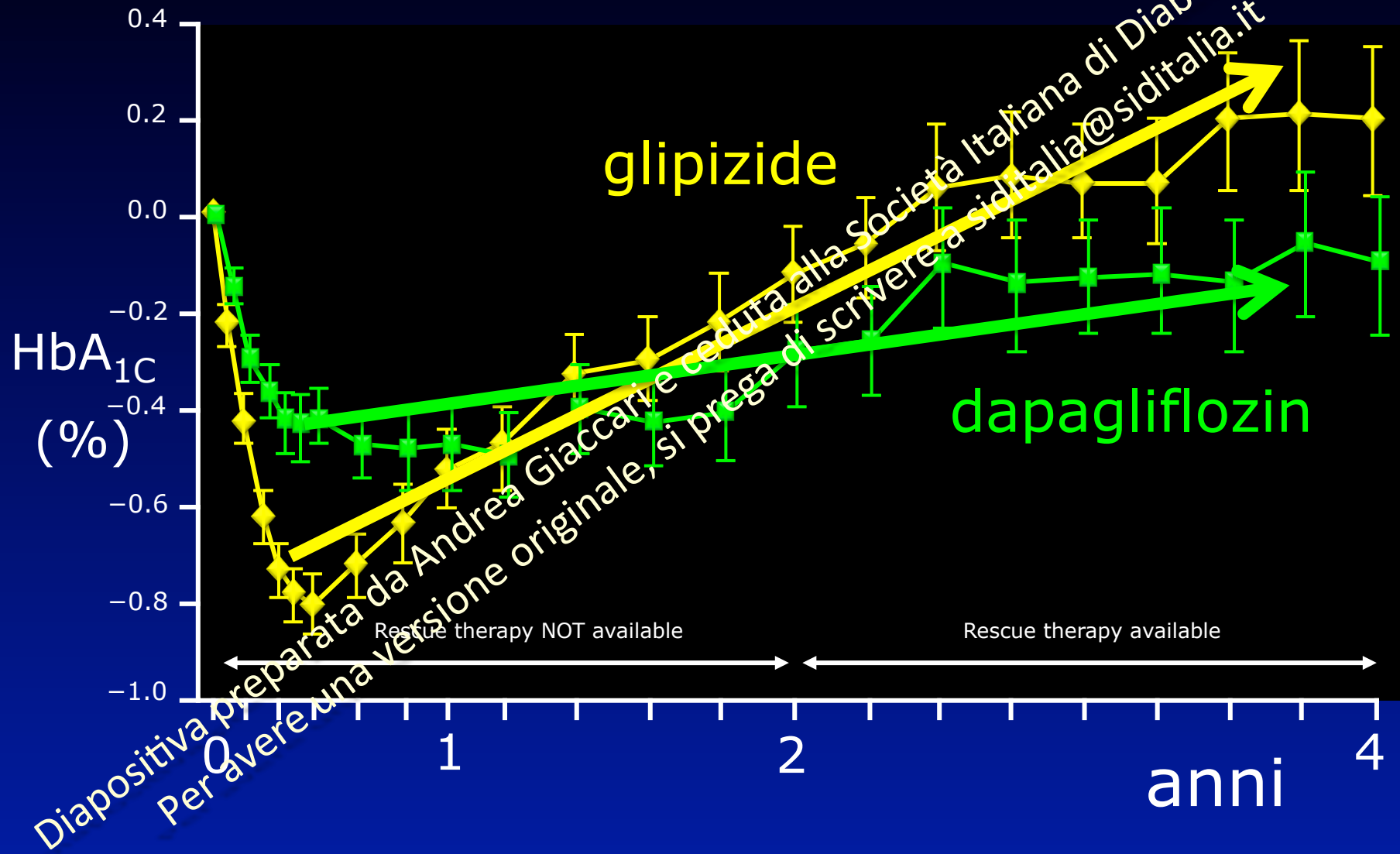
sovrastimolo



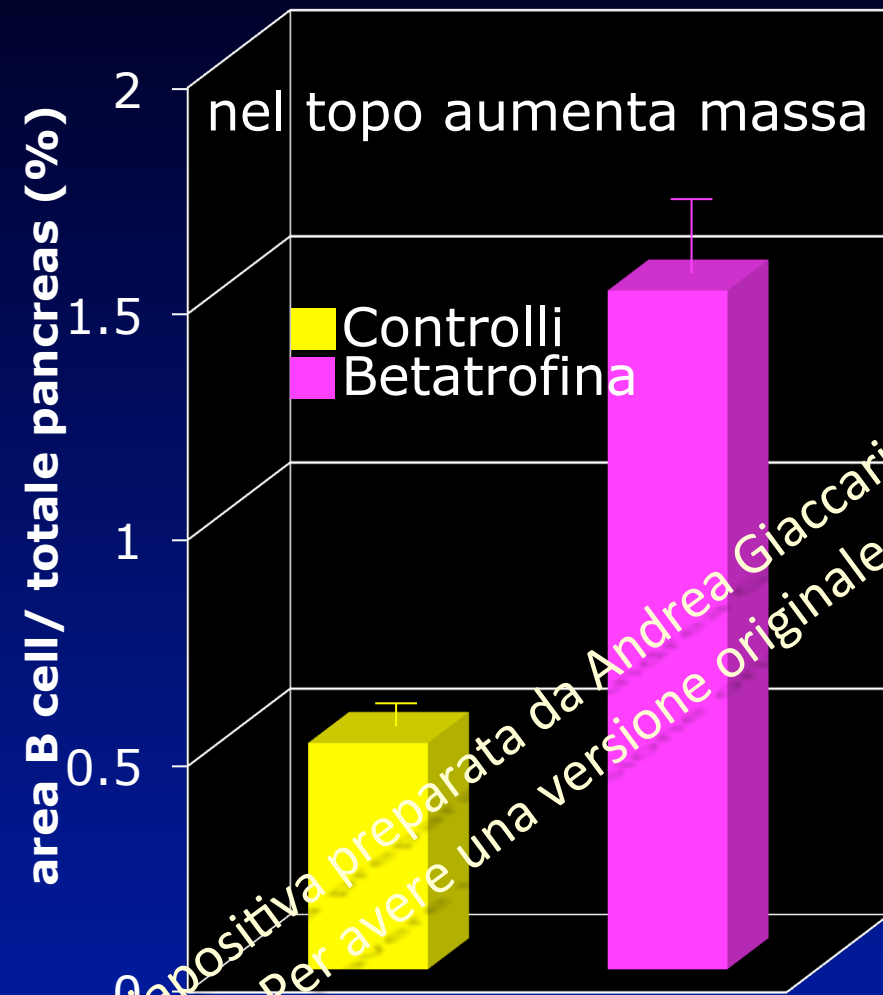
Diapositiva preparata da Andrea Giaccari e ceduta alla Società Italiana di Diabetologia.
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gliflozine

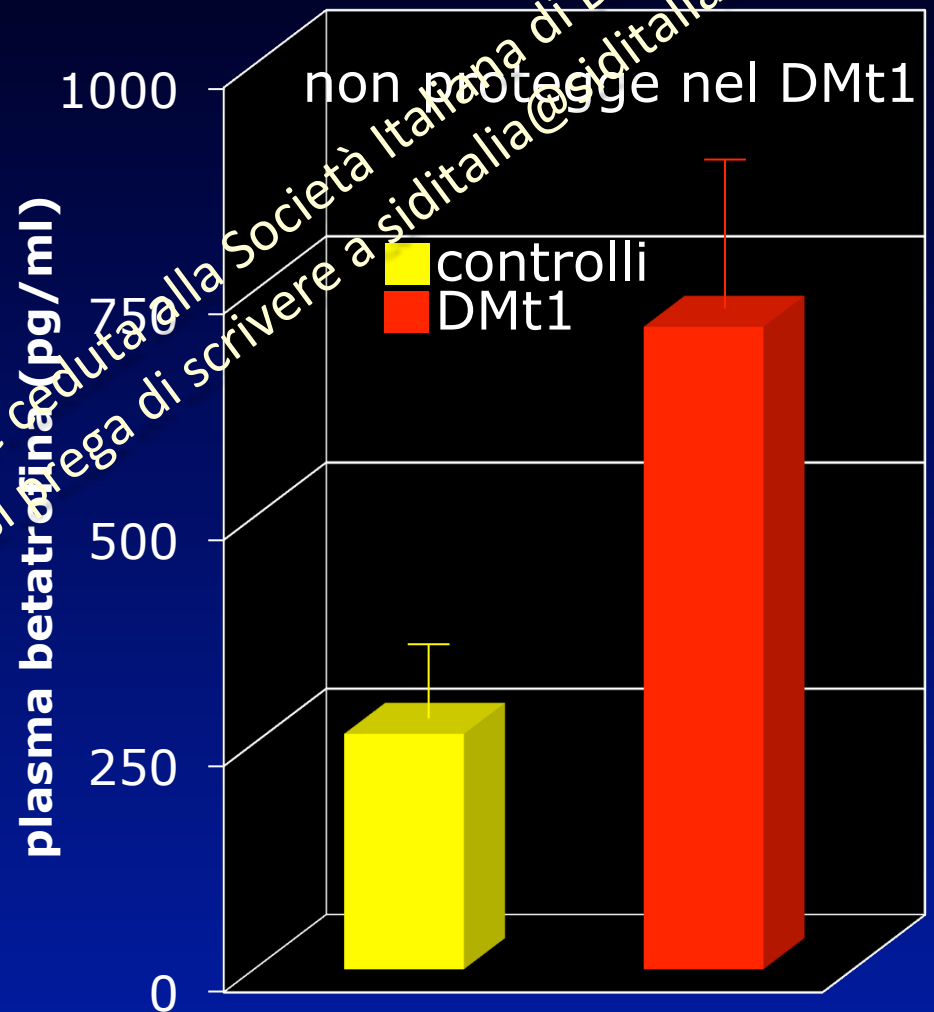
add-on a metformina: gliflozina vs. SU



futuro: betatrofina (?)



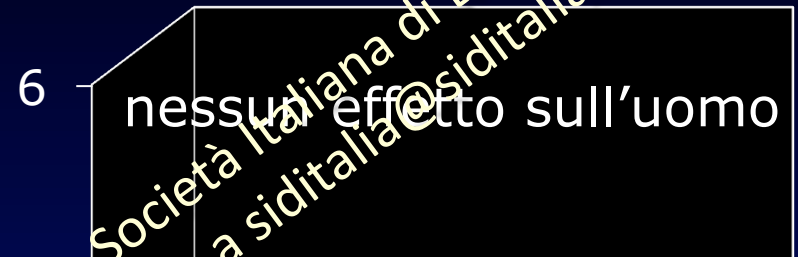
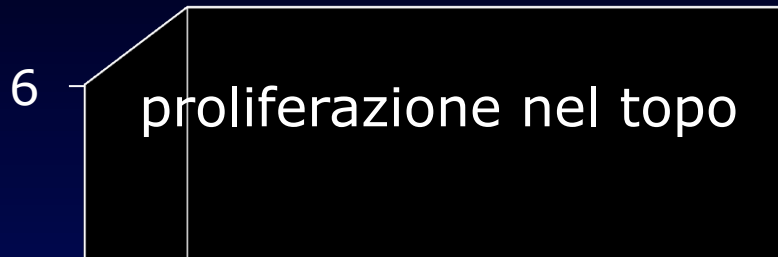
Cell 153:747; 2013



Espes D et al.: Diabetologia 57:50; 2014

futuro: betatrofina (?)

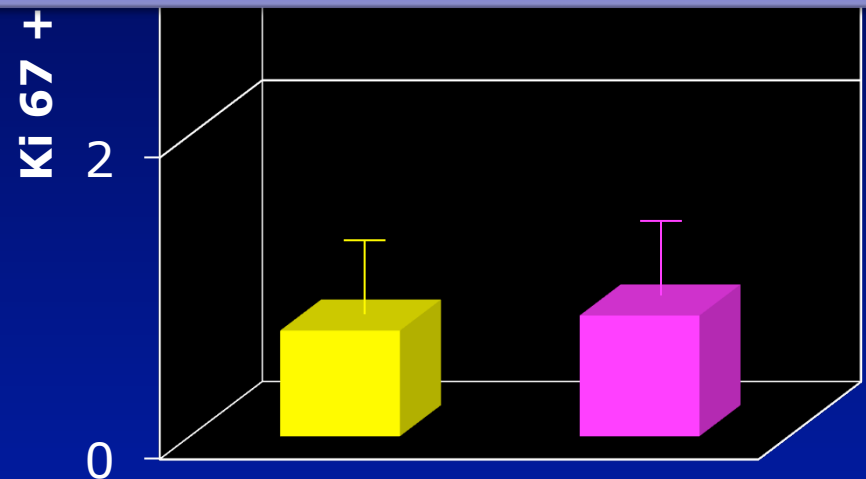
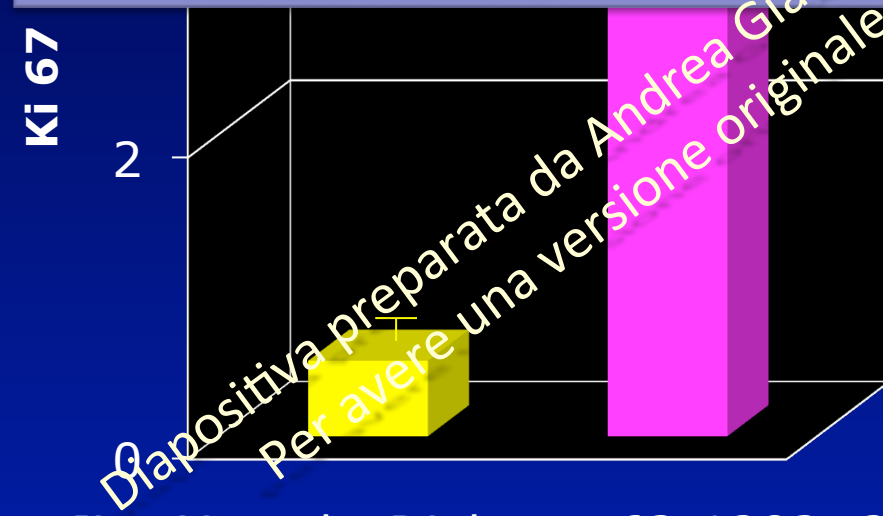
effetto sulla proliferazione di isole trapiantate



Study of Betatrophin Levels in Patients With Type 2 Diabetes and Gestational Diabetes and Healthy Subjects

ClinicalTrials.gov Identifier: NCT02025673

Qingdao University

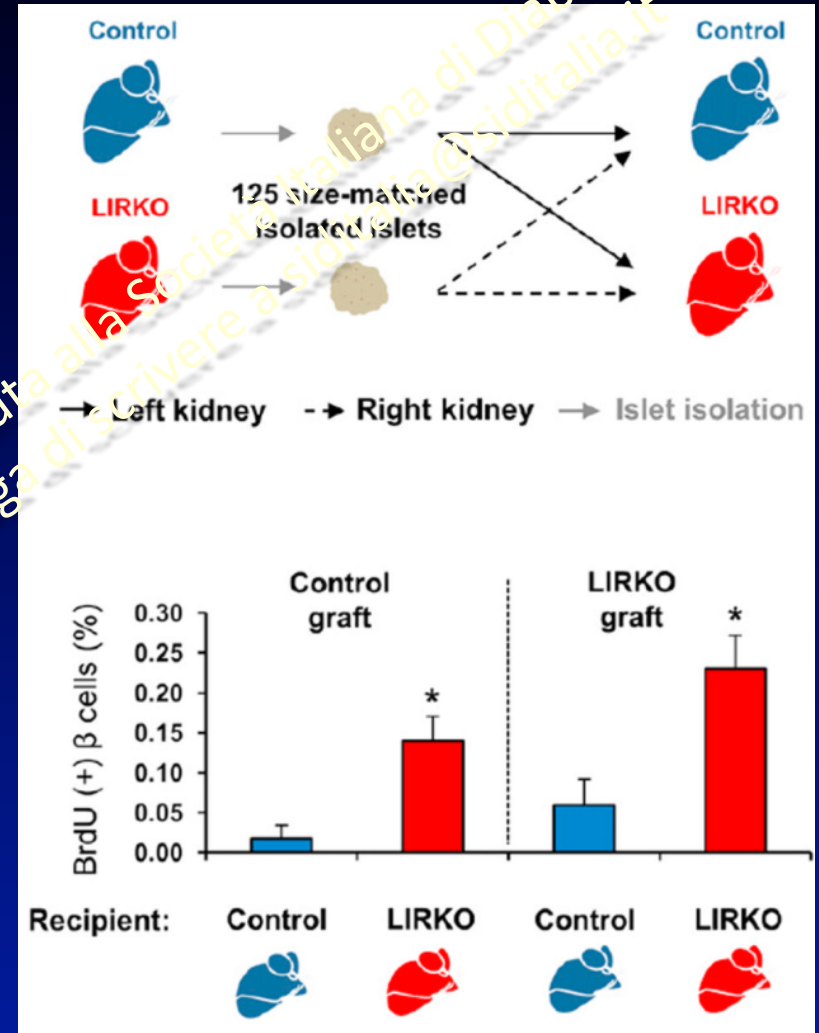
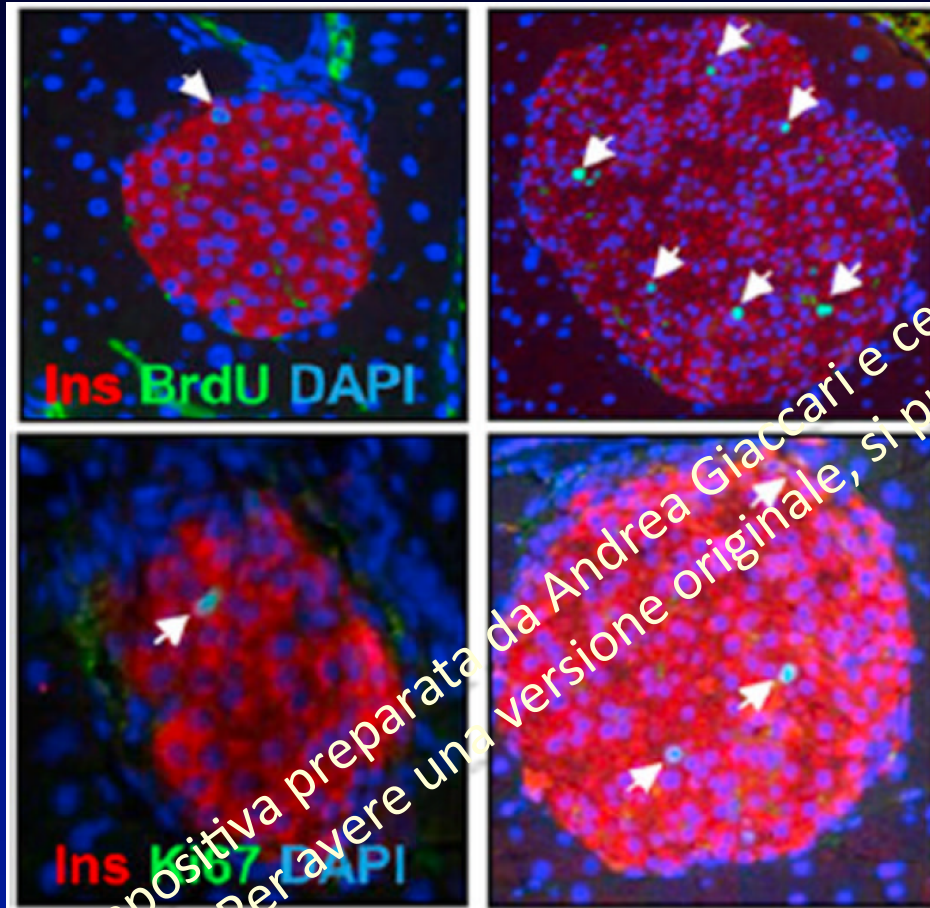


Jiao Y et al.: Diabetes 63:1283; 2014

futuro LDF (?)

controlli

LIRKO



take home messages

- nell'uomo esistono meccanismi di compenso (massa) a insulina resistenza
- possibili nuove molecole
- nel frattempo evitare sovrastimolo

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